***Massachusetts Bay Transportation Authority***
***Design & Construction Directorate***

# MBTA Processing of Errors and Omissions

## 1.0 Purpose and Scope

This procedure establishes the methods for processing design errors and omissions (E&O). This procedure applies during the performance of a construction contract.

Errors and Omissions in a Professional Services contract can be identified by various methods during the construction process such as, but are not limited to, the inspection process, processing Requests For Information, processing Change Orders, processing Claims, and preparing Balance and Excess Reports. Once the E&O has been identified it will be documented in accordance with this procedure.

The threshold for processing an error and/or omission claim or cumulative claims which meets or exceeds $5,000.000

## 2.0 GENERAL

2.1 References

A. MBTA Specifications, Division I, Part 15, Warranty
B. Project Management Manual, Section 4.0, Change Orders
C. Project Management Manual, Section 5.0, Claims
D. Project Management Manual, Section 7.0, Consultant Selection
E. Quality Assurance Procedures Manual, QAP 12.1, Problem Identification and Resolution.

2.2 Definitions

A. Design Error

A condition that exists in the design documents for which the engineering consultant is responsible which results in the need for a change to the work. A design error includes but is not limited to the following: the product of incorrect dimensioning, specifying incompatible materials or equipment, code violation, impossibility conflict or other incorrect direction in the design document. A design error may result in the need for the construction contractor to perform rework or additional work.
*B. Design Omission*

A condition that exists in the contract documents where information is missing from the design documents. A design omission is work or requirements that are omitted from the design due to an engineering consultant's omission of work that is necessary for the proper and/or safe operation of the facility or system being constructed or required to meet the original designer's scope of work.

C. *Damages*

Costs incurred by the MBTA due to the design E&O, including but not limited to MBTA's administrative cost.

D. *E&O*

This acronym means errors and/or omissions.

E. E&O Committee

The MBTA internal committee that evaluates E&O claims.

F. *Engineering Consultant*

The Design Engineer of Record.

G. Commercial Credit

A payment to the Authority in the form of cash, credit, additional services or other forms deemed acceptable by the Authority.

2.3 The engineering consultant shall be notified of E&Os within 30 days of discovery of a potential E&O, as advanced notification. The E&O Committee will review the potential E&O and decide whether to proceed with an E&O claim.

2.4 The Project Manager is responsible for:

A. Determining if a potential E&O exists;
B. Establishing a project file of E&O claims;
C. Documenting the potential E&O on Attachment 4.1, E&O Evaluation Form and processing the E&O to the E&O Committee;
D. Notifying the engineering consultant, in writing, that an E&O claim exists, Attachment 4.2 Consultant Notification Letter; and
E. Assisting in the negotiations with the engineering consultant for payment of damages to the Authority.

2.5 Attachment 4.3 is a flow chart of the actions required to process errors and omissions.

2.6 The E&O Committee is responsible for:

A. Reviewing E&O Evaluation Forms; and
B. Approving or disapproving the recovery of costs from the engineering consultant.

## 3.0 PROCEDURE

### 3.1 E&O Identification

The Project Manager (PM), and his staff shall determine if a potential E&O exists. The PM shall perform an evaluation of the conditions surrounding the E&O. The evaluation may be made as part of an internal review of the contract documents, processing a Change or Extra Work Order, Reference 2.1.A or Claims, reference 2.1.B, processing a Request for Information or Resolution Report, Reference 2.1.D. An estimated impact cost resulting from the E&O should be determined. The impact cost is any additional costs that are necessary to correct the error or omission. It should include costs that would not have been required had it not been for the delay in identifying and designing for the error or omission. Consideration shall also be given to the loss of competitive advantage which includes the MBTA costs due to changed work that is attributable to the E&O and is paid for as a change as opposed to being a part of the base contract. Use a figure of 10% of the total cost to calculate the damages attributable to loss of competitive advantage resulting from a design omission.

As part of the change order review, the PM needs to determine if the additional cost is due to an E&O. This calculation shall be entered on the MBTA CMS reporting form.

In reviewing an E&O issue, the documents and review criteria that may be considered include, but not limited to are:

1. the terms of the applicable contract, including the scope of services and deliverables; construction plans and specifications;
2. relevant MBTA project documents and logs including Requests for Information (RFI) and Resolution Reports;
3. any mitigating factors affecting the engineering consultant, the MBTA or the contractor's performance;
4. an estimate of costs or damages that the MBTA has or may incur; and
5. an analysis of the overall performance of the engineering consultant on the contract.

### 3.2 Processing E&O Evaluations.

Once the evaluation has been completed the PM shall:

A. If the E&O or accumulations thereof is less than $5,000.00, the evaluation shall be kept on file for possible future use. A running total of the costs of E&Os shall be retained for the duration of the contract and the project.

B. If the E&O, or accumulations thereof, amount to more than $5,000.00 the E&O Evaluation form shall be prepared and submitted to the E&O Committee. Any additional supportive information, including plans, sketches, etc. shall be submitted with the Evaluation Form. The engineering consultant shall be notified in writing that the MBTA is processing the E&O Evaluation Form. The engineering consultant should complete and submit to the PM an independent evaluation of the site condition and prepare its own evaluation of the claim. Engineering consultant documentation should also be forwarded to the E&O Committee by the PM.

3.3 Errors & Omissions Committee

An Errors and Omissions Committee shall review each PM's E&O Evaluation Form. The Committee will be chaired by the Assistant General Manager with representatives from Contract Administration and Quality Assurance.

The E&O committee shall make the final determination regarding the extent of engineering consultant responsibility for any errors and/or omissions and the associated costs. If the Committee determines that an E&O claim should be pursued, the Committee's final recommendation will be used to formally initiate the recovery of the added costs from the engineering consultant.

The Committee shall inform the PM in writing of its decision with a copy sent to the Deputy Director of Design –Contracts and to the General Counsel within 14 days of receipt of the Evaluation Form from the Project Manager.

3.4 The PM shall retain a copy of the E&O committee's final determination in the project E&O file. The PM shall proceed as follows:

A. If the E&O Committee's recommendation was not to pursue recovery of the costs, the E&O Evaluation sheet and the decision shall be retained in the project E&O file. Note: The matter may be pursued at a later date if additional E&Os occur. No further action is required.

B. If the E&O Committee decision is to pursue recovery of the costs, immediately a Consultant Notification Letter, Attachment 4.2, shall be prepared and forwarded to the engineering consultant and the General Counsel for response. This letter will be forwarded prior to the Authority seeking to recover any damages for the E&O.

3.5 The engineering consultant will be given the opportunity to analyze the claim and respond to the MBTA's written determination within 3 weeks. Every effort will be made to give the engineering consultant the opportunity to reach an effective and economical resolution to the dispute.

3.6 If the engineering consultant agrees to negotiate the E&O, the PM will finalize the commercial credit. A copy of the final agreement will be sent to the E&O Committee.

3.7 If the engineering consultant does not agree to negotiate, documentation of the E&O will be forwarded to the MBTA Legal Department for review.

3.8 The PM will maintain a ledger of E&Os for each MBTA contract.

3.9 Individual commercial credits will be compiled for each construction contract. At the end of the project, one complete claim may be processed by the engineering consultant to finalize all claims on the contract.

**4.0 Attachments**

4.1 MBTA E&O Evaluation Form
4.2 E&O Notification Letter
4.3 E&O Processing Flow Chart

APPROVED:

Michael Stoffel
MBTA Assistant General Manager for Design and Construction

DATE: March 29, 2005

Attachment 4.1

# MBTA E&O EVALUATION FORM

**Contract No.:**

**Contract Title:**

**Date:**

**Affected Specification:**

☐ **ERROR** ☐ **OMISSION**

**SUMMARY OF ERROR/OMISSION** _____

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**JUSTIFICATION FOR PROPOSING E/O** _____

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**LIST OF ATTACHMENTS:** _____

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**Project Manager's Signature**

Attachment 4.2

# CONSULTANT E&O NOTIFICATION LETTER

**To: (Consultant Name)**

**Address:**

**Date:**

**Contract No:** _____

**Contract Name:** _____

**Summary of Error and/or Omission:** _____

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**Justification:** _____

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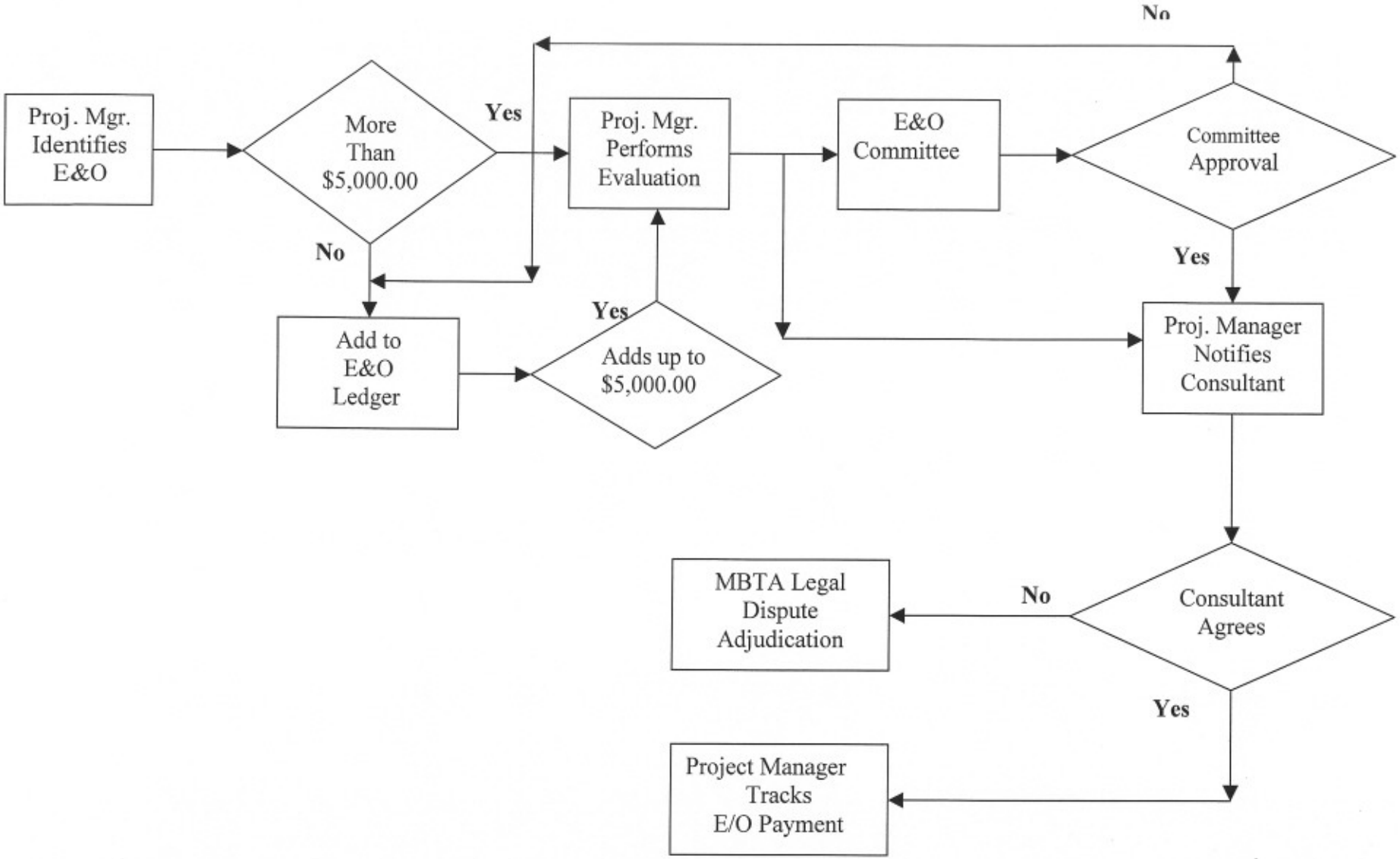
**MBTA Project Manager**




## E&O FLOW CHART